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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/536,633	03/28/2000	Toshihiro Ezaki	2000-0401A	5664

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EXAMINER

POLLACK, MELVIN H

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/536,633	EZAKI ET AL.	
	Examiner	Art Unit	
	Melvin H Pollack	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 7-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input checked="" type="checkbox"/> Other: <u>see attached office action</u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/20/04 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 2, and 7-41 are have been considered but are moot in view of the new ground(s) of rejection.

3. In the response to the last office action, the applicant changed the scope of the claims by adding several limitations to all the independent claims, and by modifying many of the dependent claims. As a result, a final amendment is necessitated even if the examiner provides a new art rejection. The examiner acknowledges that no new matter has been added by this amendment.

4. In addition to adding that "access approval leads to access commencement," the applicants have added that the access manager may investigate several access states. The examiner interprets the tests as related to collision avoidance and particularly to interferences that cause data corruption. As such, the prior art rejections are replaced, as the examiner will add art to address the new access state testing limitations.

5. The examiner withdraws the objection to the title.

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6. The examiner withdraws the 112 rejections based on the changes to the claims and specification, and due to the remarks of the applicant.

Claim Objections

7. Claim 1 is objected to because of the following informalities: “the preceding access is a read access, (c) or no....” The “(c)” should be after the “or.” Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 7-21, 30, 31, 33, 34, and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over He et al. (6,088,451) in view of Taniguchi et al. (6,445,679) and Chuah (6,115,390).

3. For claim 1, He teaches a network management system (abstract) comprising:
- a. A plurality of nodes (Fig. 2, #102; col. 4, lines 1-5; user elements);
 - b. A recording medium apparatus operable to store data (col. 4, lines 55-60), said recording medium apparatus being connected to said nodes through a network (Fig. 2, #106);
 - c. A data manager (Fig. 2, #204) operable to manage physical information of the data of said recording medium apparatus (Fig. 7), distinctive information and security information concerning the data (Fig. 6) and system configuration information of the network (col. 10, line 60 – col. 11, line 52); and

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- d. An access manager operable to manage access to the data of said recording medium apparatus (Fig. 2, #208), said access manager being operable to judge whether or not to approve the access from the information of said data manager, along with a kind of access (col. 2, lines 12-25), and to secure a transmission band for accessing the data, when the access is approved (Fig. 5, #506),
 - e. Wherein said nodes query said access manager, in accessing said recording medium apparatus, whether or not the access can be approved, and act in accordance with the response of said access manager (Fig. 4-8);
 - f. Wherein the querying node that has received access approval from said access manager is operable to commence access to the data (col. 5, lines 15-25).
4. He does not expressly disclose an access manager being operable to judge whether or not to approve the access based at least in part on a band state of the network and a band state of an interface of said recording medium apparatus. Taniguchi teaches a method (see abstract) of handling data access (col. 1, lines 5-22) in which transfer is controlled through load balancing techniques (col. 1, line 65 – col. 2, line 10) in which access is controlled based upon the state of the network and requesting node, and upon the priority of the information and requesting node (col. 2, lines 18-65). At the time the invention was made, one of ordinary skill in the art would have recognized that He needs to control access not just for security concerns but also for quality of service concerns, thereby ensuring that the requested data will be transmitted and received without error (He, col. 5, lines 55-65) and to help protect against denial of service attacks (He, col. 5, line 65 – col. 6, line 10).

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5. He does not expressly disclose that said access manager is operable to investigate an access state of said recording medium apparatus and to send access approval to a querying node if certain tests are met. Chuah teaches a method (abstract) of performing conflict resolutions and data accesses for a network (col. 1, line 1 – col. 6, line 10). Chuah also teaches that said access manager (Fig. 2, #250) is operable to investigate an access state of said recording medium apparatus (col. 18, line 65 – col. 19, line 20) and to send access approval to a querying node (col. 10, lines 8-20):

- a. If a preceeding access is a write access, and a present access request is a read access, the preceeding access is a read access, or no preceeding access exists (col. 20, lines 10-65);
- b. If a first access band is secured in an I/O band of said recording medium apparatus (col. 24, lines 40-57); and
- c. If a second access band is secured in a band of the network (col. 10, lines 8-20).

6. At the time the invention was made, one of ordinary skill in the art would have added Chuah's collision handling techniques in order to improve bandwidth distribution and efficiencies (col. 4, lines 48-60).

7. Claim 2 is drawn to the limitations in claim 1. Claim 2 also contains an access channel manager operable to establish an access channel by control of said access manager, when access to the data cannot be done by an ordinary channel, which He also teaches (Fig. 2, #206).

Therefore, since claim 1 is rejected, claim 2 is also rejected for the reasons above.

8. For claim 7, He teaches that said access manager means is further operable to judge, when an access request to data has been received from any one of the nodes, whether or not to

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approve the access based on information from said access state manager, and to send the result of judgment back to said nodes (Fig. 5, #504-514).

9. Claim 8 is drawn to the limitations in claim 7. Therefore, since claim 7 is rejected, claim 8 is also rejected for the reasons above.

10. For claim 9, He teaches that said access manager is further operable to send, when sending access approval as a result of judging whether or not to approve the access, said result of judgment to said nodes after securing a transmission band for accessing (Fig. 6, #604, #608).

11. Claim 10 is drawn to the limitations in claim 9. Therefore, since claim 9 is rejected, claim 10 is also rejected for the reasons above.

12. For claim 11, He teaches that said access manager is further operable to control said access channel manager to establish the access channel (col. 14, lines 18-34), but does not expressly disclose that access manager is operable, to manage load status of the network, and to acquire the network load status as stored in said access channel manager. Taniguchi teaches this limitation (col. 9, lines 18-47). At the time the invention was made, one of ordinary skill in the art would have combined the two inventions in order to ensure reliable transfers of data (col. 1, lines 25-65).

13. For claim 12, He does not expressly disclose that said access manager is operable to control a predetermined node to secure in advance a transmission band required for access to a recording medium apparatus allocated to said predetermined node. Taniguchi teaches this limitation (Fig. 4, #A2). At the time the invention was made, one of ordinary skill in the art would have added this limitation to ensure a smooth transmission rate (col. 3, lines 20-27).

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14. Claim 13 is drawn to the limitations in claim 12. Therefore, since claim 12 is rejected, claim 13 is also rejected for the reasons above.

15. For claim 14, He teaches that wherein one of said nodes is operable to send, in accessing said recording medium apparatus, an access request to said access manager, and upon receiving the access request, said access manager is operable to send to said data manager a request for information pertaining to data or said recording medium apparatus, and upon receiving the requested information from said data manager, said access manager is operable to judge whether or not to approve the access (Fig. 7).

16. Claim 15 is drawn to the limitations in claim 14. Therefore, since claim 14 is rejected, claim 15 is also rejected for the reasons above.

17. For claim 16, He teaches that said access manager is provided in one of said recording medium apparatus or one of said nodes (Fig. 1, col. 1, lines 35-45).

18. Claim 17 is drawn to the limitations in claim 16. Therefore, since claim 16 is rejected, claim 17 is also rejected for the reasons above.

19. For claim 18, He teaches that said data manager is provided in one of said nodes or said recording medium apparatus (col. 4, lines 5-17).

20. Claim 19 is drawn to the limitations in claim 18. Therefore, since claim 18 is rejected, claim 19 is also rejected for the reasons above.

21. For claim 20, He does not expressly disclose that said access manager is further operable to control said access channel manager and to cut off the access channel. Taniguchi teaches these limitations (Fig. 19). At the time the invention was made, one of ordinary skill in the art

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would have added such a cutoff to He in order to handle troubles and interruptions (col. 24, lines 35-41).

22. For claim 21, He teaches that said access channel manager is further operable to control configuration and access state of the network connected to each port of said access channel manager (col. 14, line 45 – col. 15, line 10).

23. For claim 30, He teaches that said data manager is further operable to manage and send system configuration information of the network (col. 5, lines 49-58).

24. Claim 31 is drawn to the limitations in claim 30. Therefore, since claim 30 is rejected, claim 31 is also rejected for the reasons above.

25. For claim 33, He teaches that said data manager is further operable to send management information based upon a request from a node (col. 15, line 55 – col. 16, line 3).

26. Claim 34 is drawn to the limitations in claim 33. Therefore, since claim 33 is rejected, claim 34 is also rejected for the reasons above.

27. For claim 37, He teaches that the network management system further comprises:

- a. Wherein the network is comprised of a first network and a second network (Fig. 3, #106 and #302),
- b. Wherein said plurality of nodes are coupled with the first and second networks (Fig. 3, #102),
- c. Wherein said data manager and said access manager are coupled with the first network (Fig. 3, #202-206, top), and
- d. Wherein said recording media apparatus is coupled with the second network (Fig. 3, #102, bottom).

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37. For claim 38, He does not expressly disclose that there is a plurality of second networks. Taniguchi teaches this limitation (Fig. 1, #14). At the time the invention was made, one of ordinary skill in the art would have added this limitation in order to link several LANs together, as is well known in the art.

38. For claim 39, He does not expressly disclose the particular layout. Taniguchi teaches that the network management system further comprises:

- a. Wherein the network is comprised of a first network and a plurality of second networks (Fig. 1, #14),
- b. Wherein said plurality of nodes are coupled with the first network (Fig. 1, #13),
- c. Wherein said plurality of nodes are additionally coupled with one of the plurality of second networks or said access channel manager (Fig. 1, #12),
- d. Wherein said data manager and said access manager are coupled with the first network (Fig. 1, #20), and
- e. Wherein said recording media apparatus is coupled with one of the plurality of second networks or said access channel manager (Fig. 1, #11).

39. At the time the invention was made, one of ordinary skill in the art would have added this limitation to take advantage of several LAN-linking topologies well known in the art.

40. Claims 40 and 41 are drawn to the limitations in claims 1, 16, and 18. Therefore, since claims 1, 16, and 18 are rejected, claims 40 and 41 are also rejected for the reasons above.

41. Claims 22-29, 32, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over He, Taniguchi, and Chuah as applied to claims 1, 2 above, and further in view of Peters et al. (6,374,336).

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42. For claim 22, He does not expressly disclose that wherein a predetermined node or said data manager manages data management information on the data separately from the data thereby to allow deletion of only the data management information when said predetermined node deletes the data. Peters teaches a system (abstract) that a predetermined node or said data manager (Fig. 1, #42) manages data management information on the data separately from the data (Fig. 1, #49) thereby to allow deletion of only the data management information when said predetermined node deletes said data (Figs. 7 & 8). At the time the invention was made, one of ordinary skill in the art would have used Peters in the He system to better handle multimedia systems (col. 2, lines 3-5).

43. For claim 23, He does not expressly disclose that access to the data deleted by said predetermined node is made accessible from a node other than said predetermined node. Peters teaches this limitation (Fig. 25). At the time the invention was made, one of ordinary skill in the art would have used the Peters recovery method in He so that a user would be able to reconstruct lost or damaged files.

44. For claim 24, He does not expressly disclose that said recording medium apparatus is divided into video and audio sections each of which is operable to respectively use a separate file system. Peters discloses this limitation (col. 22, lines 4-5). At the time the invention was made, one of ordinary skill in the art would have added a Peters split disk to He's system in order to produce a system which can transfer multiple, independent high-bandwidth streams of data in a scalable and reliable manner (col. 2, lines 52-60).

45. Claim 25 is drawn to the limitations in claim 24. Therefore, since claim 24 is rejected, claim 25 is also rejected for the reasons above.

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46. Claim 26 is drawn to the limitations in claim 24. Therefore, since claim 24 is rejected, claim 26 is also rejected for the reasons above.

47. For claim 27, He does not expressly disclose that data manager is further operable to receive newly generated management information each time writing or deleting of data on said recording medium apparatus is made, and to internally reflect the newly generated management information. Peters teaches this limitation (Fig. 3, #127; Fig. 4). At the time the invention was made, one of ordinary skill in the art would have used the Peters reference to allow editing of the above information (col. 7, lines 1-15).

48. Claim 28 is drawn to the limitations in claim 27. Therefore, since claim 27 is rejected, claim 28 is also rejected for the reasons above.

49. Claim 29 is drawn to the limitations in claim 27. Therefore, since claim 27 is rejected, claim 29 is also rejected for the reasons above.

50. Claims 32 and 35 contain limitations already drawn in claim 1. Therefore, they are rejected for the reasons above, and must be amended or cancelled.

51. Claim 36 is drawn to the limitations in claim 22. Therefore, since claim 22 is rejected, claim 36 is also rejected for the reasons above.

Conclusion

52. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (571) 272-3887.

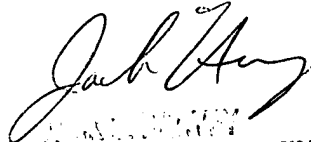
The examiner can normally be reached on 8:00-4:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571) 272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
21 January 2004



JACK HARVEY
SUPERVISOR
ART UNIT 2145
FEB 10 2004